

Training Gap Analysis

Data Sources and Concepts for
Measuring Labor Supply and Demand

I. DEFINING TRAINING LEVELS FOR DETERMINING TOP OCCUPATIONS

The Old BLS Education and Training Levels, 2008

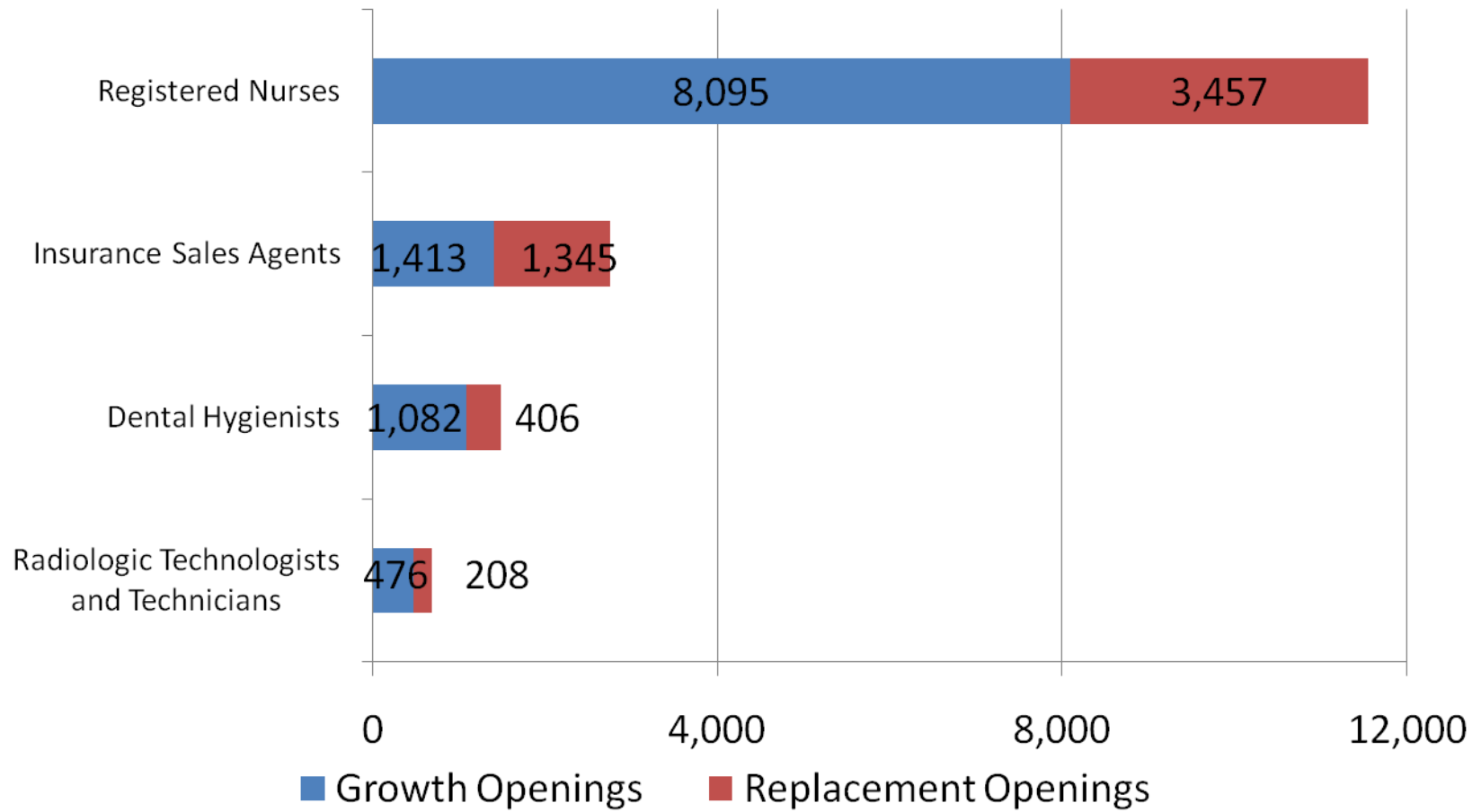
Typical Education, Work Experience, and On-The-Job Training Needed for Entry
First professional degree
Doctoral degree
Master's degree
Bachelor's or higher degree, plus work experience
Bachelor's degree
Associate's degree
Postsecondary vocational training
Work experience in a related occupation
Long-term on-the-job training
Moderate-term on-the-job training
Short-term on-the-job training

The New BLS Education and Training Levels, 2010 forward

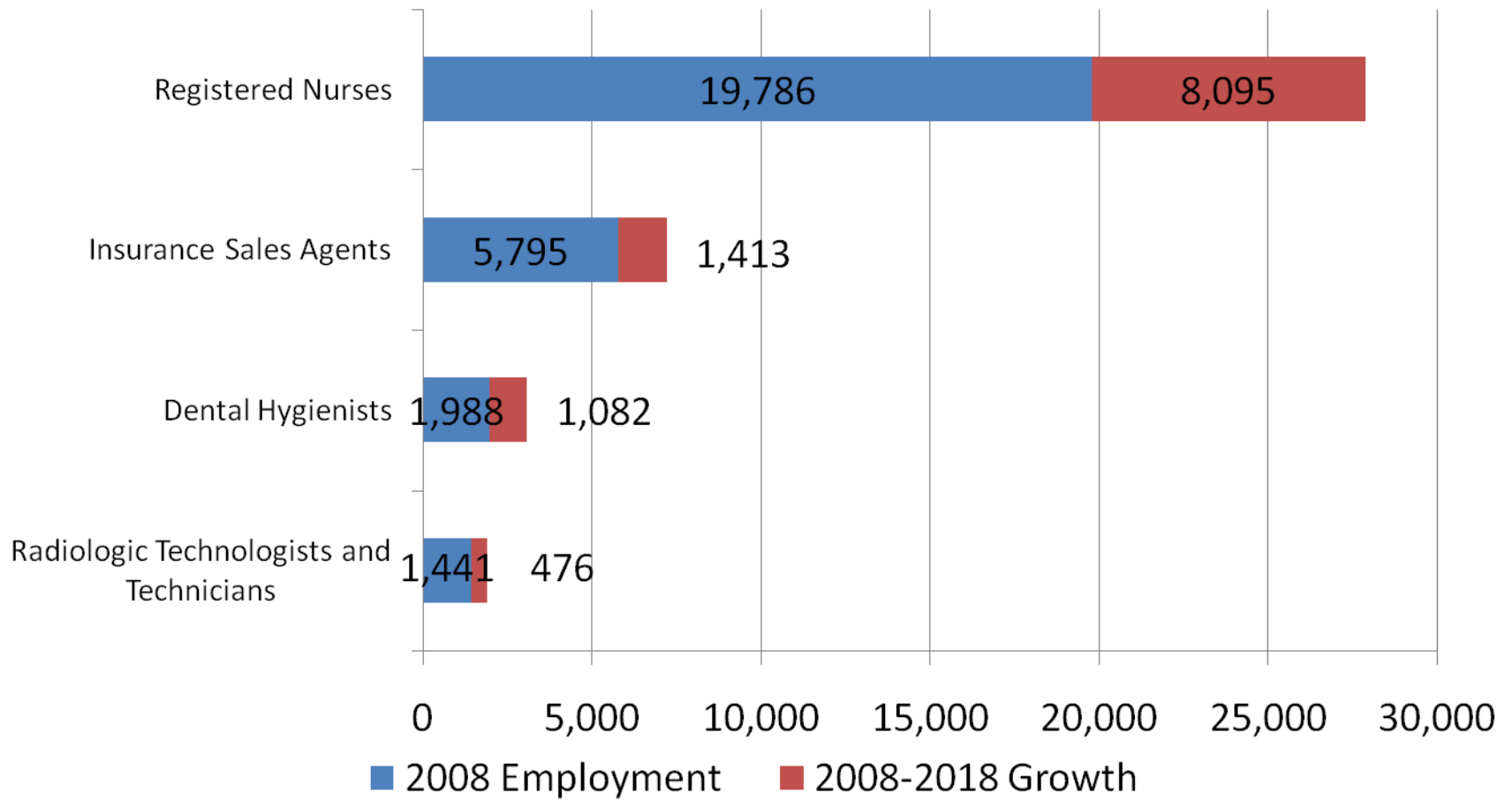
Education Needed for Entry	Work Experience in a Related Field	Typical on-the-job training needed to attain competency
Doctoral or professional degree	More than 5 years	Internship/residency
Master's degree	1 to 5 years	Apprenticeship
Bachelor's degree	Less than 1 year	Long-term on-the-job training
Associate's degree	None	Moderate-term on-the-job training
Postsecondary non-degree award		Short-term on-the-job training
Some college, no degree		
High school diploma or equivalent		
Less than high school		

II. IDENTIFYING TOP OCCUPATIONS

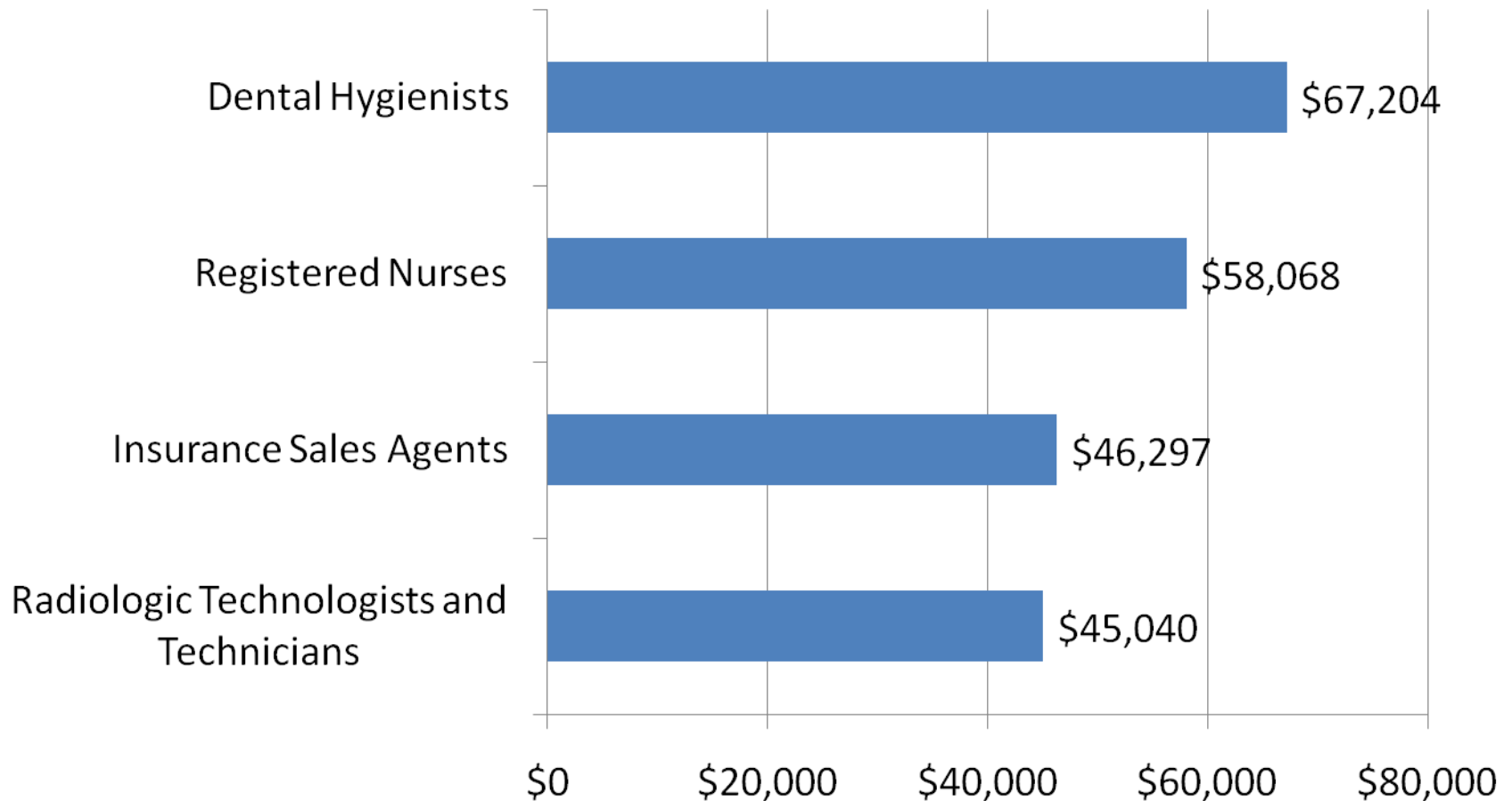
Top Occupations for AS Degrees and Post-Secondary Vocational Training: Growth and Replacement Openings, 2008-2018



Top Occupations for AS Degrees and Post-Secondary Vocational Training – Employment and 10-Year Growth

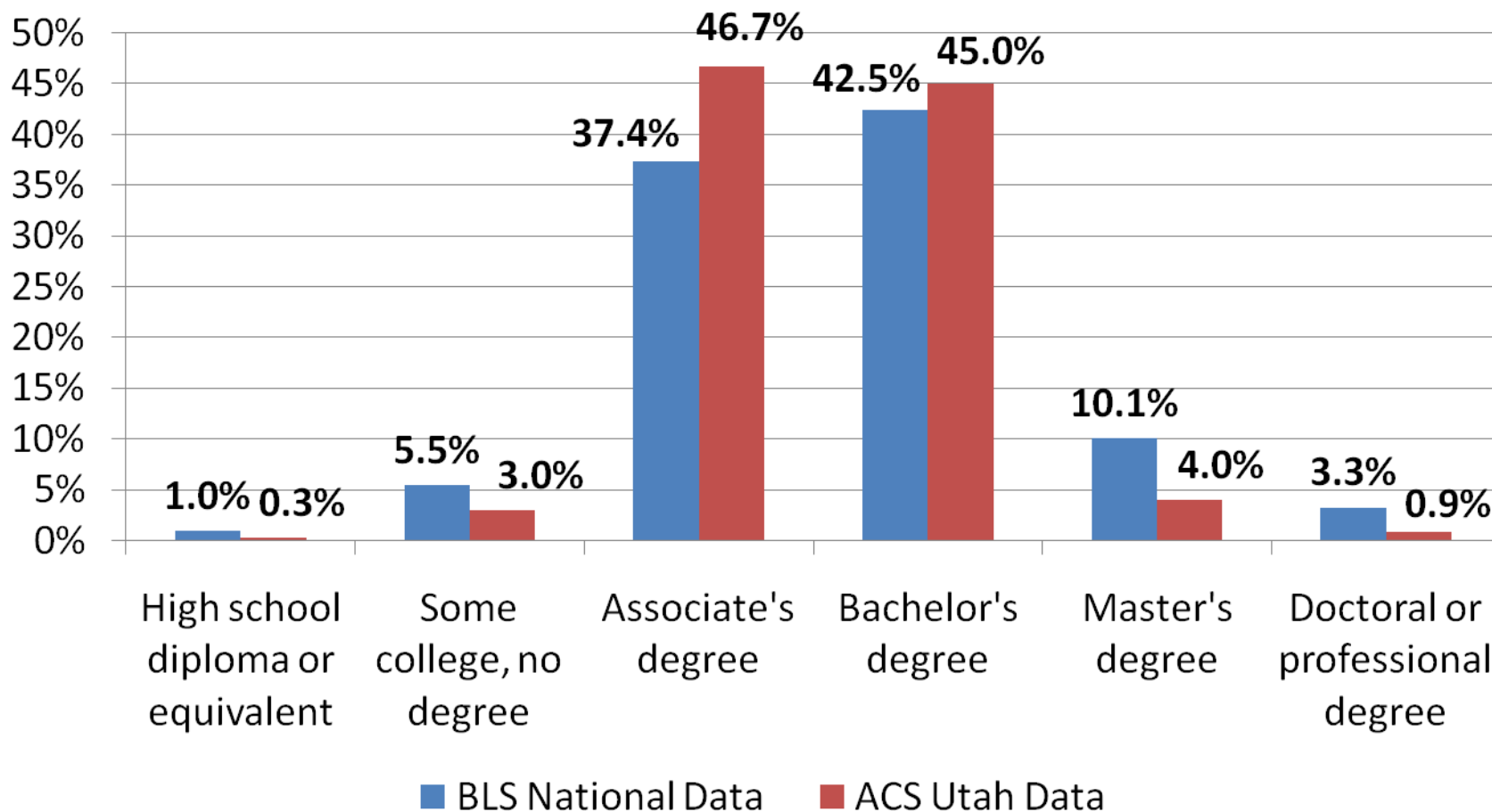


Top Occupations for AS Degree and Post-Secondary Vocational Training – Annual Wages



III. EVALUATING TRAINING LEVELS

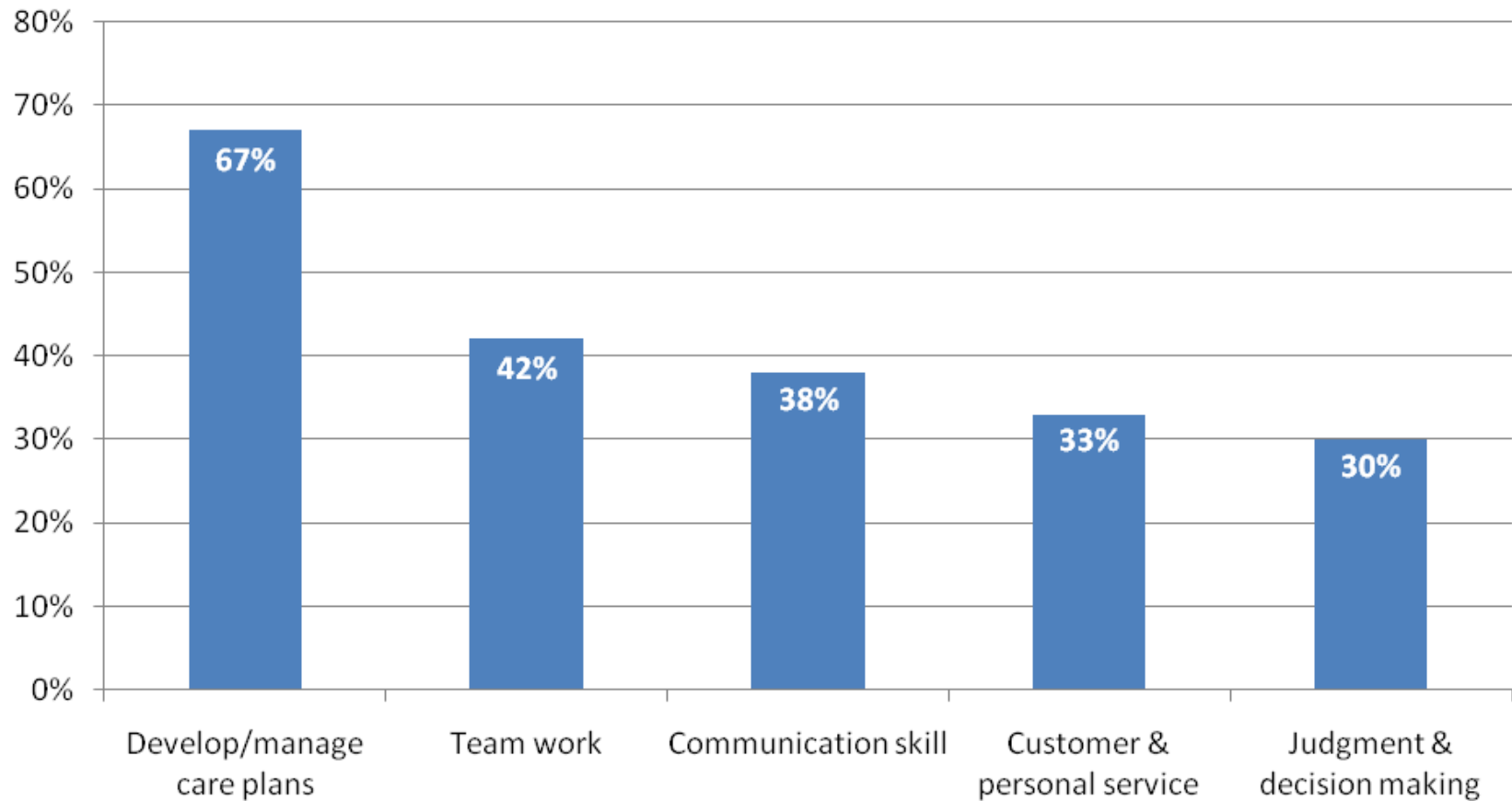
Distribution of Educational Attainment in Nursing, 2010



Comparing Training Requirement Information for Nurses

- BLS occupational coding: Associates degree, no experience, no on-the-job training
- Incumbent education attainment in Utah: 45% have bachelor's degrees, 46.7% have associate's
- DWS Job postings for 2011: 77% of job orders required one or two years experience in addition to the degree

Frequency of O*NET Skills Categories in DWS Job Orders



Differences between O*NET and DWS Job Orders

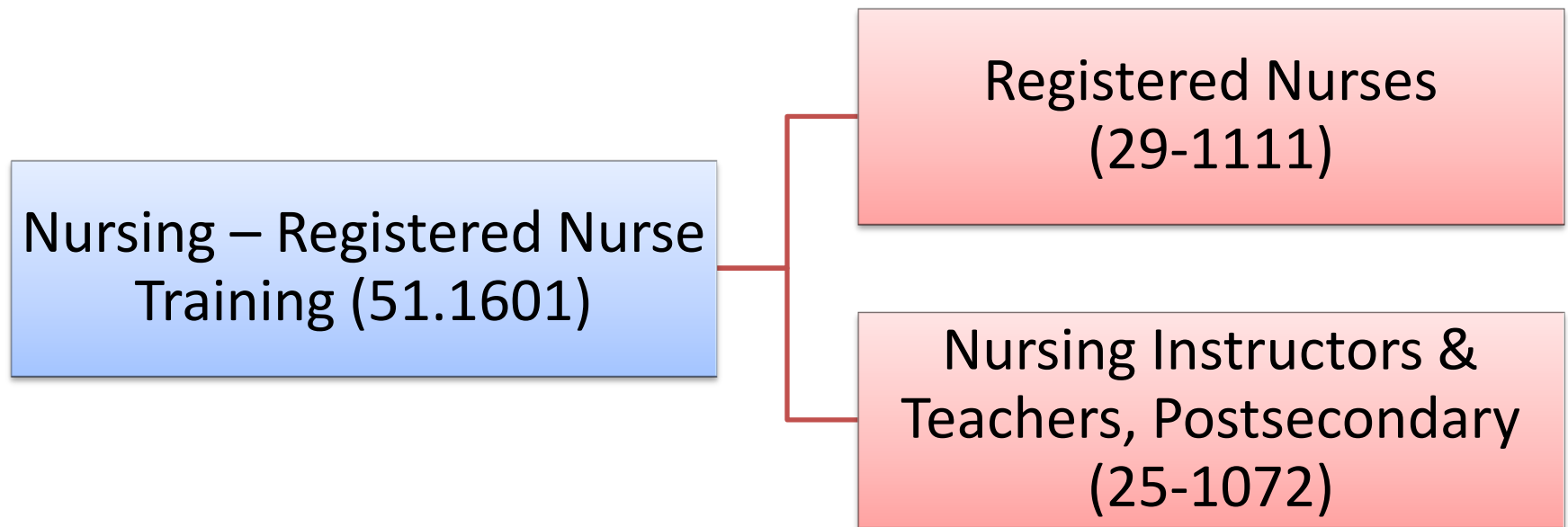
- 62 percent of DWS job orders required Basic Life Support certification. Not included in ONET occupational details
- DWS job orders listed required previous experience, which O*NET does not include

DWS Job Orders Indicate Experience Required

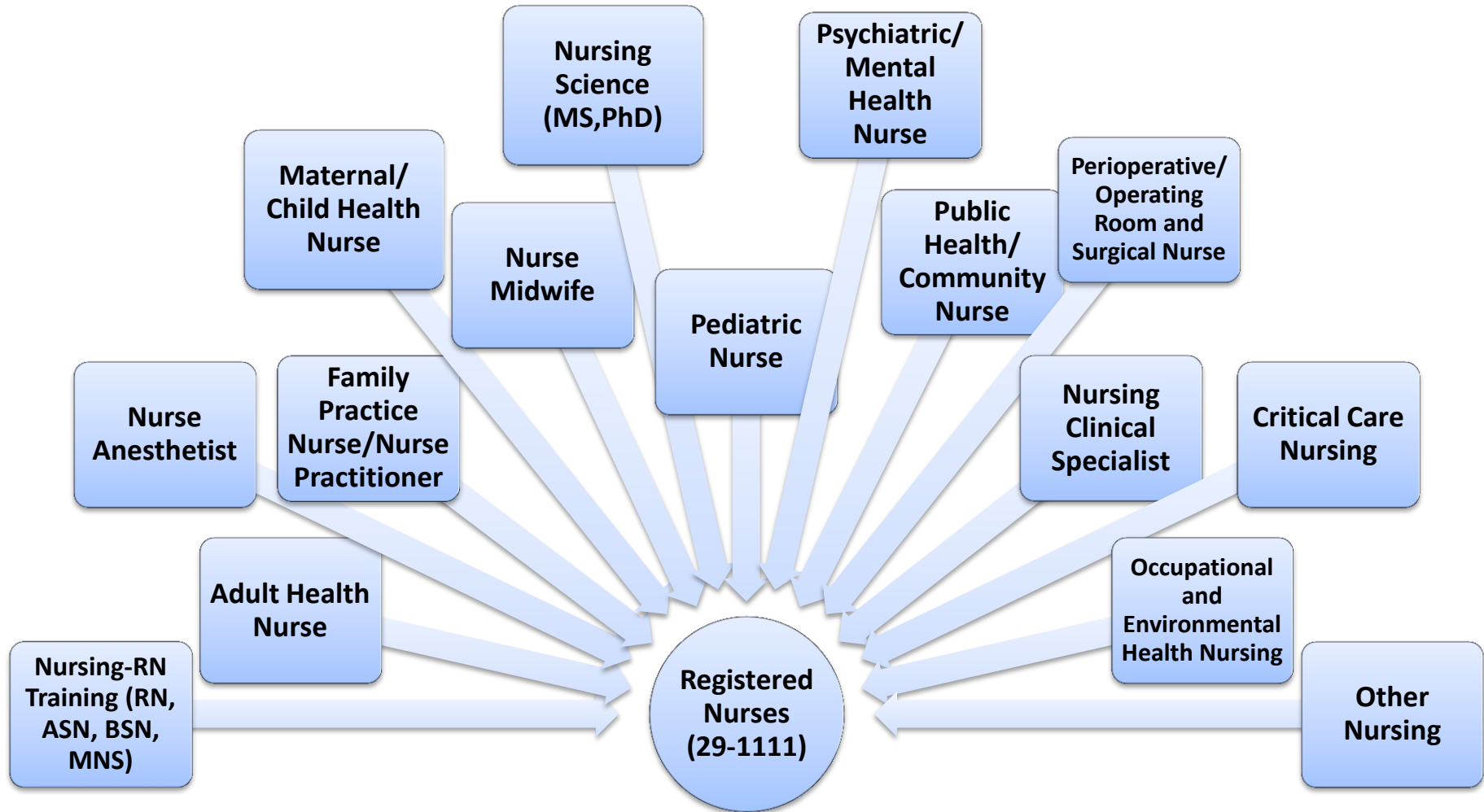
Experience Needed	Count	Frequency
None or none listed	133	4%
1 year	1,329	42%
2 or more years	1,091	35%
Experience needed, length of time unspecified	595	19%
Total	3,148	100%

IV. EVALUATING EDUCATIONAL PROGRAMS

From RN Training Programs to Occupations (CIP to SOC)



From RN Occupation to Training Programs (SOC to CIP)



Utah Schools Offering Nurse Education Programs

- Family Nurse Practitioner Certificate—Westminster
- Nurse Assistant Certificate—Dixie College
- Nursing Associate's—SUU, SLCC, UVU, WSU, Dixie, Snow, CEU
- Nursing Bachelor's—UVU, WSU, Westminster, Dixie, U of U
- Nursing Masters/PhD—Westminster, U of U

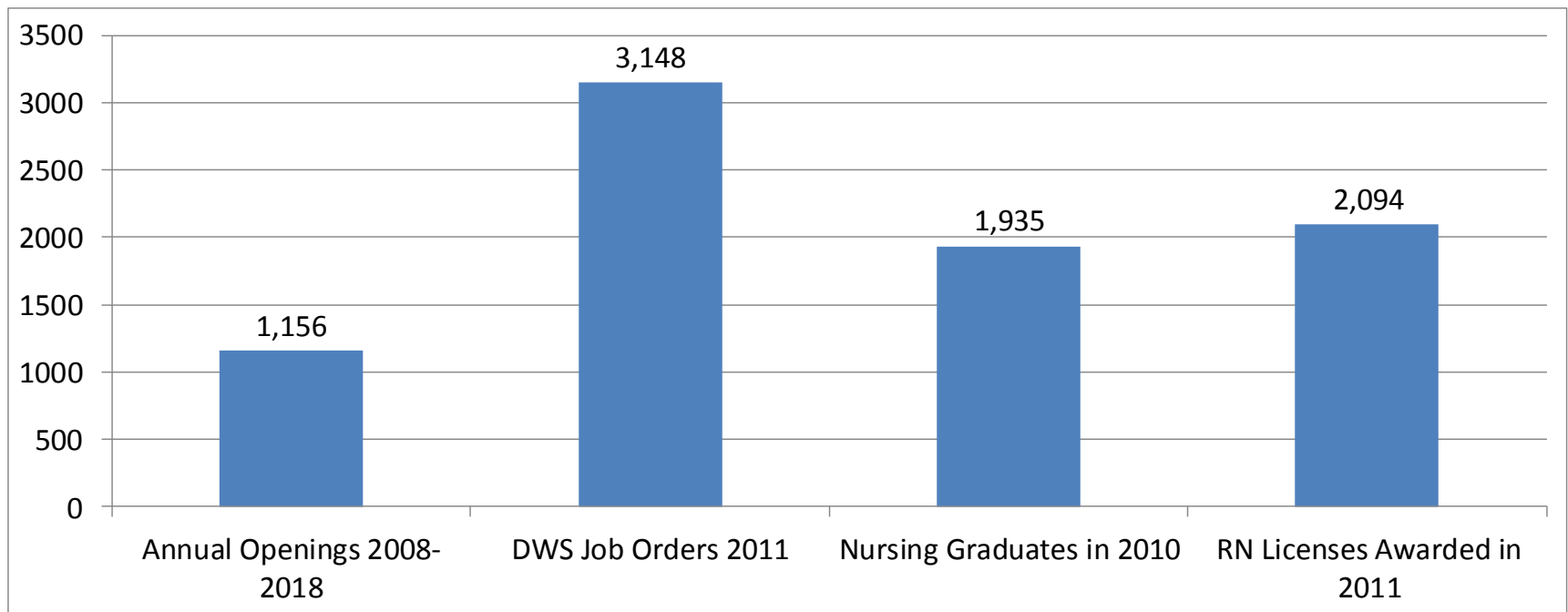
Source: USHE, Utah Majors

V. SUPPLY AND DEMAND ANALYSIS

Stock Analysis: Current Employment, Unemployment Rate

- Number of RNs employed in 2010: 18,230
- Number of current RN licenses: 25,345
- 2010 Unemployment rate for nursing degree holders (BS and above): 3.7%

Flow Analysis: Comparing Annual Openings, Graduation Rates, and Licensing Rates



Market Analysis

- Stock and flow analysis indicate moderate churn in nursing relative to overall occupational employment level
- Growth indicates churn is primarily driven by steady expansion of demand
- Unemployment rate likely indicating frictional unemployment only; demand remains strong

Market Analysis Continued

- Flow statistics seem to indicate that a nursing shortage is persistently imminent due to steady growth in healthcare and staffing pattern changes
- Some alternative statistics such as the Job Vacancy Survey indicate there may be some instances where nursing positions remain unfilled, but overall picture shows that supply meets demand on an average annual basis

Gap Analysis

- BLS data indicates an associate's degree is all that is necessary for ENTRY
- Job order data and incumbent educational attainment however show a trend toward higher degrees
- Missing piece: Qualitative analysis. Are the degree programs preparing graduates with the necessary KSAs?